to problems, and any feature(s) that may cause any benefit, advantage, or solution to occur or become more pronounced are not to be construed as a critical, required, or essential feature of any or all the claims. Moreover, the particular embodiments disclosed above are illustrative only, as the disclosed subject matter may be modified and practiced in different but equivalent manners apparent to those skilled in the art having the benefit of the teachings herein. No limitations are intended to the details of construction or design herein shown, other than as described in the claims below. It is therefore evident that the particular embodiments disclosed above may be altered or modified and all such variations are considered within the scope of the disclosed subject matter. Accordingly, the protection sought herein is as set forth in the claims below.

What is claimed is:

1. In a data center comprising a set of computing resources having heterogeneous power dynamics, a method comprising:

configuring the set of apparently homogeneous computing resources having heterogeneous power dynamics to meet a power budget constraint for the set based on a corresponding idle power consumption metric and a corresponding peak power consumption metric for each computing resource of the set.

2. The method of claim **1**, wherein configuring the set of computing resources to meet the power budget constraint comprises:

identifying a first subset of computing resources of the set that are idle; and

reducing a power consumption of the set by preferentially selecting for deactivation a computing resource of the first subset having the highest idle power consumption metric.

3. The method of claim **2**, wherein configuring the set of computing resources to meet the power budget constraint further comprises:

identifying a second subset of computing resources of the set that are active;

determining, for each computing resource of the second subset, a dynamic power consumption metric based on a difference between the peak power consumption metric and the idle power consumption metric for the computing resource; and

preferentially selecting for reallocation of one or more processing workloads from the selected computing resource of the first subset a computing resource of the second subset having the lowest dynamic power consumption metric.

4. The method of claim **1**, configuring the set of computing resources to meet the power budget constraint further comprises:

identifying a first subset of computing resources of the set that are deactivated;

identifying a second subset of computing resources of the set that are idle;

determining, for each computing resource of the second subset, a dynamic power consumption metric based on a difference between the peak power consumption metric and the idle power consumption metric for the computing resource;

preferentially selecting for allocation of a processing workload a computing resource of the second subset responsive to determining that the computing resource of the second subset has a dynamic power consumption metric that is lower than the peak power consumption metrics of the computing resources of the first subset; and

preferentially powering up and selecting for allocation of the processing workload a computing resource of the first subset responsive to determining that the computing resource of the first subset has a peak power consumption metric less than the dynamic power consumption metrics of the computing resources of the second subset.

5. The method of claim **1**, further comprising:

determining a power cap based on the power budget constraint; and

wherein configuring the set of heterogeneous computing resources to meet the power budget constraint further comprises:

determining, for each active computing resource of the set, a dynamic power consumption metric based on a difference between the peak power consumption metric and the idle power consumption metric for the computing resource; and

preferentially selecting the active computing resource having the highest dynamic power consumption metric for implementation of the power cap.

6. The method of claim **1**, further comprising:

testing each of the computing resources of the set to determine the corresponding idle power consumption metric and the corresponding peak power consumption metric.

7. The method of claim **6**, further comprising:

retesting each of the computing resources of the set to update the corresponding idle power consumption metric and the corresponding peak power consumption metric.

8. The method of claim **1**, wherein each of the computing resources of the set comprises one of: an individual server of the data center; and a corresponding group of two or more servers of the data center.

9. A computing system comprising:

a set of apparently homogeneous computing resources with heterogeneous power dynamics;

a datastore to store information representing a corresponding idle power consumption metric and a corresponding peak power consumption metric for each computing resource of the set; and

a controller coupled to the set of heterogeneous computing resources and the datastore, the controller to configure the set of heterogeneous computing resources to meet a power budget constraint for the set based on the corresponding idle power consumption metric and the corresponding peak power consumption metric for each computing resource of the set.

10. The computing system of claim **9**, wherein the controller is to configure the set of heterogeneous computing resources to meet the power budget constraint by:

identifying a first subset of computing resources of the set that are idle; and

reducing a power consumption of the set by preferentially selecting for deactivation a computing resource of the first subset having the highest idle power consumption metric.